



# OWNER'S      MANUAL

FOR

## WIRE FEEDER

**MODEL: CMRE-741 (1U30004)**

**DO NOT DESTROY**

**IMPORTANT:** Read and understand the entire contents of this manual, with special emphasis on the safety material throughout the manual, before installing, operating, or maintaining this equipment. This equipment and this manual are for use only by persons trained and experienced in the safety operation of welding equipment. Do not allow untrained persons to install, operate or maintain this equipment. Contact your distributor if you do not fully understand this manual.

**DAIHEN Corporation** WELDING PRODUCTS DIVISION

**Upon contact, advise MODEL and MANUAL NO.**

Notice : Machine export to Europe

This product does not meet the requirements specified in the EC Directives which are the EU safety ordinance that was enforced starting on January 1, 1995. Please make sure that this product is not allowed to bring into the EU after January 1, 1995 as it is.

The same restriction is also applied to any country which has signed the EEA accord.



Please ask us before attempting to relocate or resell this product to or in any EU member country or any other country which has signed the EEA accord.

## TABLE OF CONTENTS


1. SAFETY INFORMATION.....	E2
2. ARC WELDING SAFETY PRECAUTIONS.....	E2
3. CHECKING OF THE STANDARD COMPOSITION AND THE ACCESSORIES.....	E8
4. NAMES OF PARTS.....	E8
5. CARRYING AND INSTALLING OF THE WIRE FEEDER.....	E9
6. CONNECTION PROCEDURE.....	E10
7. WELDING PREPARATION.....	E11
8. MAINTENANCE AND TROUBLESHOOTING.....	E15
9. PARTS LIST.....	E17
10. SPECIFICATIONS.....	E23

## 1. SAFETY INFORMATION



The following safety alert symbols and signal words are used throughout this manual to identify various hazards and special instructions.

 <b>WARNING</b>	<b>WARNING</b> gives information regarding possible personal injury or loss of life.
 <b>CAUTION</b>	<b>CAUTION</b> refers to minor personal injury or possible equipment damage.

## 2. ARC WELDING SAFETY PRECAUTIONS

 <b>WARNING</b>
<b>ARC WELDING can be hazardous.</b>
<ol style="list-style-type: none"><li><b>1. PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH.</b> Be sure to:<ul style="list-style-type: none"><li>• Keep children away.</li><li>• Keep pacemaker wearers away until consulting a doctor.</li></ul></li><li><b>2. Read and understand the summarized safety information given below and the original principal information that will be found in the PRINCIPAL SAFETY STANDARDS.</b></li><li><b>3. Have only trained and experienced persons perform installation, operation, and maintenance of this equipment.</b></li><li><b>4. Use only well-maintained equipment. Repair or replace damaged parts at once.</b></li></ol>
<b>ARC WELDING is safe when precautions are taken.</b>

## 2. ARC WELDING SAFETY PRECAUTIONS (continued)

	<b>ELECTRIC SHOCK can kill.</b>
<p>Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuits are electrically live whenever the output is on. The power line and internal circuits of this equipment are also live when the line disconnect switch is on. When arc welding all metal components in the torch and work circuits are electrically live.</p> <ol style="list-style-type: none"><li>1. Do not touch live electrical parts.</li><li>2. Wear dry insulating gloves and other body protection that are free of holes.</li><li>3. Insulate yourself from work and ground using dry insulating mats or covers.</li><li>4. Be sure to disconnect the line disconnect switch before installing, changing torch parts or maintaining this equipment.</li><li>5. Properly install and ground this equipment according to its Owner's Manual and national, state, and local codes.</li><li>6. Keep all panels and covers of this equipment securely in place.</li><li>7. Do not use worn, damaged, undersized, or poorly spliced cables.</li><li>8. Do not touch electrodes or any metal object if POWER switch is ON.</li><li>9. Do not wrap cables around your body.</li><li>10. Turn off POWER switch when not in use.</li></ol>	
	<b>ARC RAYS can burn eyes and skin: FLYING SPARKS AND HOT METAL can cause injury. NOISE can damage hearing.</b>
<p>Arc rays from the welding process produce intense heat and strong ultraviolet rays that can burn eyes and skin.</p> <p>Noise from some arc welding can damage hearing.</p> <ol style="list-style-type: none"><li>1. Wear face shield with a proper shade of filter (See ANSI Z 49.1 listed in PRINCIPAL SAFETY STANDARDS) to protect your face and eyes when welding or watching a welder work.</li><li>2. Wear approved face shield or safety goggles. Side shields recommended.</li><li>3. Use protective screens or barriers to protect others from flash and glare: warn others not to look at the arc.</li><li>4. Wear protective clothing made from durable, flame-resistant material (wool and leather) and foot protection.</li><li>5. Use approved earplugs or earmuffs if noise level is high. Chipping and grinding can cause flying metal. As welds cool, they can throw off slag.</li><li>6. Wear proper body protection to protect skin.</li></ol>	

## 2. ARC WELDING SAFETY PRECAUTIONS (continued)



**WELDING can cause fire and explosion.**

Sparks and spatter fly off from the welding arc. The flying sparks, hot metal, spatter, hot base metal and hot equipment can cause fire and explosion. Accidental contact of electrode or welding wire to metal object can cause sparks, overheating, or fire.

1. Protect yourself and others from flying sparks and hot metals.
2. Do not weld where flying sparks can strike flammable material.
3. Remove all flammables within 10m (33ft) of the welding arc. If this is not possible, tightly, cover them with approved covers.
4. Be alert that welding sparks and hot metals from welding can easily pass through cracks and openings into adjacent areas.
5. Watch for fire, and keep a fire extinguisher nearby.
6. Be aware that welding on a ceiling, floor, bulkhead, or partition can ignite a hidden fire.
7. Do not weld on closed containers such as tanks or drums.
8. Connect power cable for base metal as close to the welding area as possible to prevent the welding current from traveling along unknown paths and causing electric shock and fire hazards.
9. Remove stick electrode from holder or cut off welding wire at contact tip when not in use.
10. Do not use the welding power source for anything other than arc welding.
11. Wear oil-free protective garments such as leather gloves, a heavy shirt, cuffless trousers, boots, and a cap.
12. A loose cable connection can cause sparks and excessive heating.
13. Tighten all cable connections.
14. When there is an electrical connection between a work piece and the frame of wire feeder or the wire reel stand, arc may be generated and cause damage by a fire if the wire contacts the frame or the work piece.






**FUMES AND GASES can be hazardous to your health.**

Arc welding produce fumes and gases. Breathing these fumes and gases can be hazardous to your health.


1. Keep your head out of the fumes. Do not breathe the fumes.
2. Ventilate the area and/or use exhaust at the arc to remove welding fumes and gases.
3. If ventilation is poor, use an approved air-supplied respirator.
4. Read the Material Safety Data Sheets (MSDS) and the manufacturer's instructions on metals, consumables, coatings, and cleaners.
5. Do not weld or cut in locations near degreasing, cleaning, or spraying operations. The heat and arc rays can react with vapors to form highly toxic and irritating gases.
6. Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Shielding gases used for welding can displace air causing injury or death. Be sure the breathing air is safe.

## 2. ARC WELDING SAFETY PRECAUTIONS (continued)

	<b>CYLINDER can explode if damaged.</b>
<p>A shielding gas cylinder contains high-pressure gas. If damaged, a cylinder can explode. Since gas cylinders are normally part of the welding process, be sure to handle them carefully.</p> <ol style="list-style-type: none"><li>1. Use only correct shielding gas cylinders, gas regulator, hoses, and fittings designed for the specific application; maintain them in good condition.</li><li>2. Protect compressed gas cylinders from excessive heat, mechanical shock, and arcs.</li><li>3. Keep the cylinder upright and securely chained to a stationary support or a rack to prevent falling or tipping.</li><li>4. Keep cylinders away from any welding or other electrical circuit.</li><li>5. Never touch cylinder with welding electrode.</li><li>6. Read and follow instructions on compressed gas cylinders, associated equipment, and the CGA publication P-1 listed in PRINCIPAL SAFETY STANDARDS.</li><li>7. Turn face away from valve outlet when opening cylinder valve.</li><li>8. Keep protective cap in place over valve except when gas cylinder is in use or connected for use.</li><li>9. Do not disassemble or repair the gas regulator except if you are authorized by the manufacturer.</li></ol>	

		<b>Rotating parts may cause injuries. Be sure to observe the following.</b>
<p>If hands, fingers, hair or clothes are put near the fan's rotating parts or wire feeder's feed roll, injuries may occur.</p> <ol style="list-style-type: none"><li>1. Do not use this equipment if the case and the cover are removed.</li><li>2. When the case is removed for maintenance/inspection and repair, certified or experienced operators must perform the work. Erect a fence, etc. around this equipment to keep others away from it.</li><li>3. Do not put hands, fingers, hair or clothes near the rotating fans or wire feed roll.</li></ol>		

## 2. ARC WELDING SAFETY PRECAUTIONS (continued)

	<p><b>ARC WELDING work areas are potentially hazardous.</b></p>
<p><b>FALLING or MOVING machines can cause serious injury.</b></p> <ol style="list-style-type: none"><li>1. When hanging the welding power source by a crane, do not use the carrying handle.</li><li>2. Put the welding power source and wire feeder solidly on a flat surface.</li><li>3. Do not pull the welding power source across a floor laid with cables and hoses.</li><li>4. Do not put wire feeder on the welding power source.</li><li>5. Do not put the welding power source or wire feeder where they will pit or fall.</li></ol> <p><b>WELDING WIRE can cause puncture wounds.</b></p> <ol style="list-style-type: none"><li>1. Do not press the gun trigger until instructed to do so.</li><li>2. Do not point the gun toward any part of the body, other people, or any metal when threading welding wire.</li></ol>	



## PRINCIPAL SAFETY STANDARDS

Arc welding equipment – Installation and use, Technical Specification IEC 62081, from International Electro technical Commission

Arc welding equipment Part 5: Wire feeders IEC 60974-5, from International Electro technical Commission

Safety in Welding and Cutting, ANSI Standard Z49.1, from American Welding Society.

Safety and Health Standards, OSHA 29 CFR 1910, from Superintendent of Documents, U.S. Government Printing Office.

Recommended Practices for Plasma Arc Cutting, American Welding Society Standard AWS C5.2, from American Welding Society.

Recommended Safe Practices for the Preparation for Welding and Cutting of Containers That Have Held Hazardous Substances, American Welding Society Standard AWS F4.1, from American Welding Society.

National Electrical Code, NFPA Standard 70, from National Fire Protection Association.

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1, from Compressed Gas Association.

Code for Safety in Welding and Cutting, CSA Standard W117.2, from Canadian Standards Association, Standards Sales.

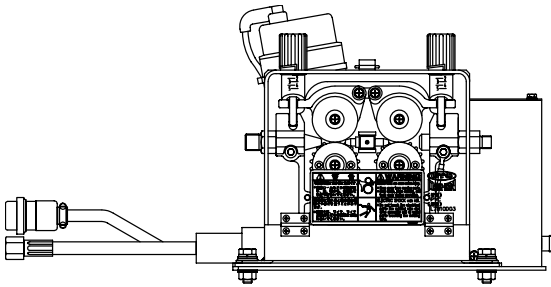
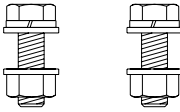
Safe Practices For Occupation And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute.

Cutting And Welding Processes, NFPA Standard 51B, from National Fire Protection Association.

NOTE: The codes listed above may be improved or eliminated. Always refer to the updated codes.

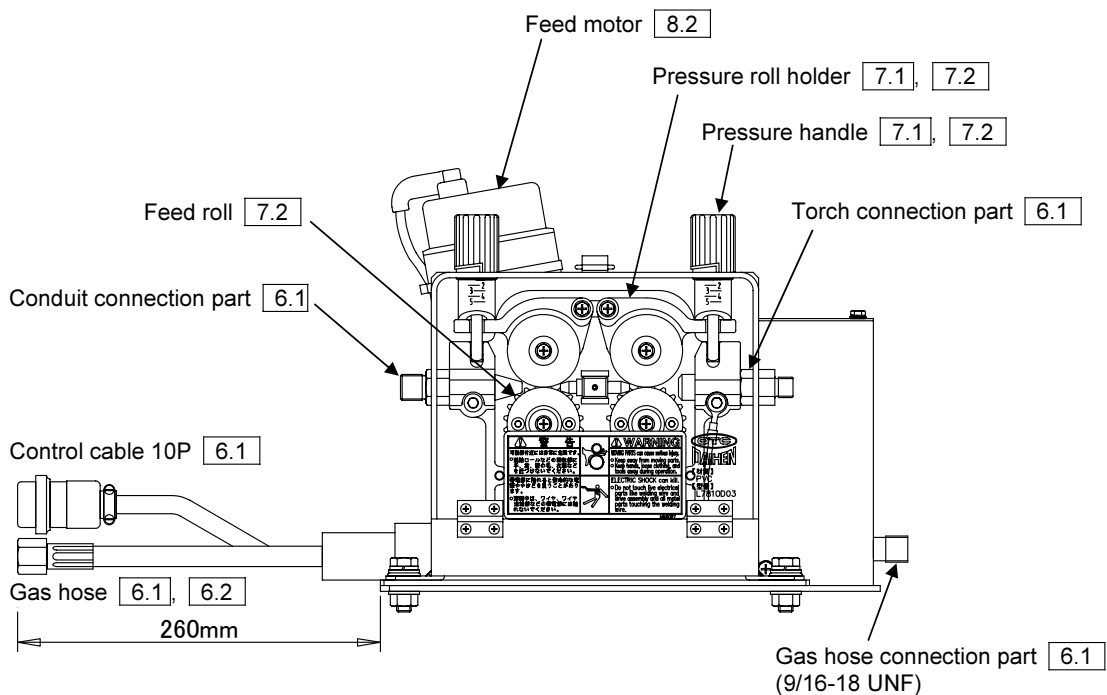
### 3. CHECKING OF QUANTITY OF THE ACCESSORIES

Check the quantity of parts when opening the package.

Wire feeder		Accessory															
																	
		<table border="1"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Specification</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>①</td> <td>Hexagon head bolt</td> <td>M8×25</td> <td>2</td> </tr> <tr> <td>②</td> <td>Plain washer</td> <td>M8</td> <td>2</td> </tr> <tr> <td>③</td> <td>Nut</td> <td>M8</td> <td>2</td> </tr> </tbody> </table>	No.	Description	Specification	Quantity	①	Hexagon head bolt	M8×25	2	②	Plain washer	M8	2	③	Nut	M8
No.	Description	Specification	Quantity														
①	Hexagon head bolt	M8×25	2														
②	Plain washer	M8	2														
③	Nut	M8	2														




### 4. NAMES OF PARTS

● Refer to the section indicated in □ for details.






## 5. CARRYING AND INSTALLING OF THE WIRE FEEDER

### 5.1 Transportation

 <b>WARNING</b>	
To prevent accidents and damage of the welding machine during transportation, observe the following.	
	<ul style="list-style-type: none"> <li>● Do not touch the charging parts inside or outside the wire feeder.</li> <li>● Be sure to disconnect the line disconnect switch when carrying the welding machine.</li> </ul>
	<ul style="list-style-type: none"> <li>● Be sure to detach the wire reel from the wire feeder before lifting the equipment to the high places by a crane.</li> </ul>

### 5.2 Installation


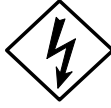
 <b>WARNING</b>	
When installing the wire feeder, follow the instructions below to avoid occurrence of fires during welding and physical damage by fume gas.	
	<ul style="list-style-type: none"> <li>● Do not place the welding machine near combustible materials and flammable gas.</li> <li>● Remove combustible materials to prevent dross coming into contact with combustible objects. If that not possible, cover them with noncombustible covers.</li> </ul>
	<ul style="list-style-type: none"> <li>● To avoid gas poisoning and danger of suffocation, wear a gas mask or adequately ventilate when using the welding machine in the place regulated by a local law.</li> <li>● To prevent disorder or poisoning caused by fume, wear a gas mask or weld at a partial exhaust facility approved by the local regulation.</li> <li>● Adequately ventilate or wear a gas mask when using the welding machine in a tank, a boiler, a hold of a ship, because heavier gas such as carbon dioxide or argon gases are drifting there.</li> <li>● When using the welding machine at a narrow space, comply with a trained supervisor's directions. And be sure to wear a gas mask.</li> <li>● Do not operate the welding machine near the place where degreasing, cleansing, and spraying are performed. Otherwise, poisonous gas may be generated.</li> <li>● Be sure to wear a gas mask or adequately ventilate when welding a coating steel plate. (Poisonous gas and fume may be generated.)</li> <li>● Do not place the welding power source, wire feeder, torch, and control cable (including the extension cable) in an area where the equipment can become wet.</li> </ul>

#### INSTALLATION PLACE

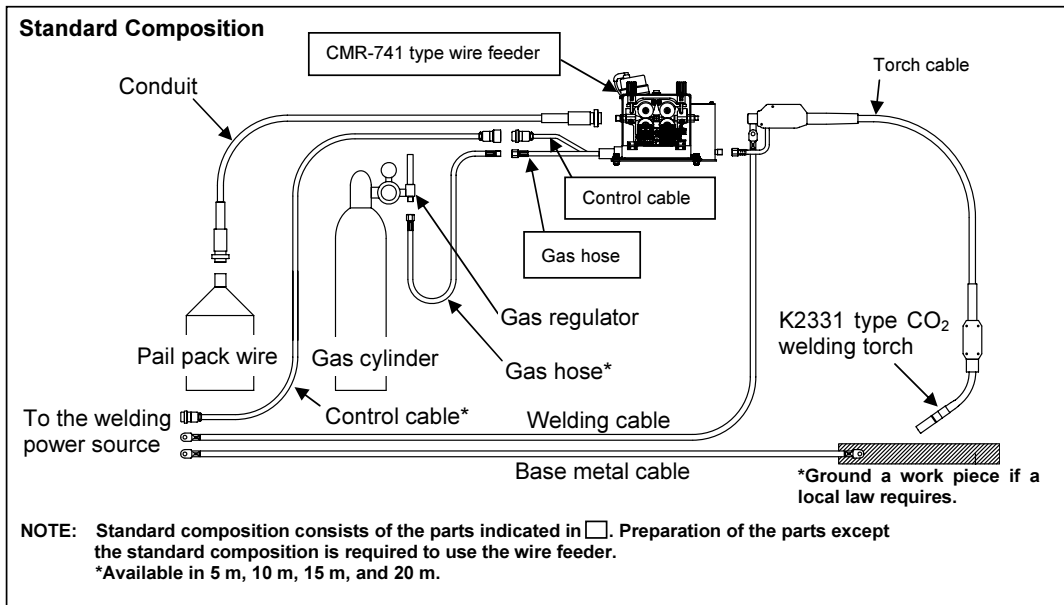
Follow the instructions below when selecting an installation place of the wire feeder.

- Do not install the wire feeder in the indoor place subject to direct sunlight and rain.
- Install the wire feeder in the place where the ambient temperature is between -10 °C and +40 °C.
- Use a wind shield to protect arc from a wind blow when welding on a windy day.



## 6. CONNECTION PROCEDURE


 <b>CAUTION</b>	
	To prevent accidents and damage of the welding machine during transportation, observe the following.
<p>Do not touch the charged sections; otherwise, you might receive serious electric shock or get burned.</p> <ul style="list-style-type: none"> <li>● Do not touch the charged sections.</li> <li>● Have a qualified electric engineer ground the case of the welding power source. Have a qualified electric engineer ground the base metal or jig electrically connected, following a local law.</li> <li>● Connect the welding machine with all the line disconnect switches inside the switch box turned off.</li> <li>● Do not use a cable with lack of capacity or a damaged cable.</li> <li>● Tighten and insulate the connections of cables.</li> <li>● Firmly attach the cover of the welding machine after connection of the cables.</li> <li>● Attach the case properly after connecting the cable.</li> </ul>	

### 6.1 Connecting to the Welding Power Source and to the Gas flow rate regulators



### 6.2 Connecting of the Gas Hose

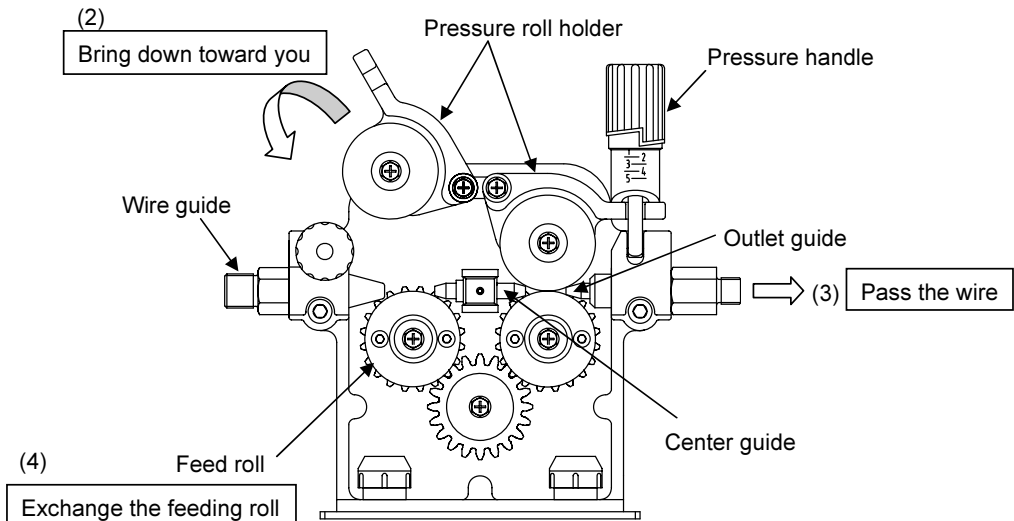
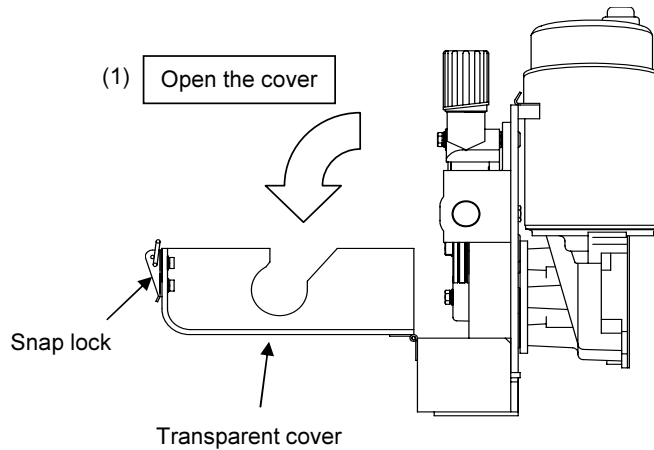
 <b>WARNING</b>	
	<ul style="list-style-type: none"> <li>● You may suffer from danger of suffocation caused by lack of oxygen when shield gas keeps drifting in a closed place. Be sure to turn off the shield gas at the main when the welding power source is not in use.</li> </ul>

 <b>WARNING</b>	
<ul style="list-style-type: none"> <li>● Be sure to connect the gas hose after fixing gas cylinder to the stand, as physical injuries may result from falling down of it.</li> <li>● Attach a proper gas regulator to a gas cylinder. Failure to observe the demand may result in physical injuries. The gas regulator for high pressure gas must be used.</li> </ul>	

## 7. WELDING PREPERATION

### 7.1 Fitting of Wire

1. Open the snap lock, and bring down the transparent cover.
2. Bring down the pressure handle, then raise the pressure roll holder.
3. After pulling out the wire, thread it from the wire guide to the outlet guide through the center guide.
4. When changing the feed roll, refer to 7.2.
5. Replace the pressure roll holder and pressure handle.



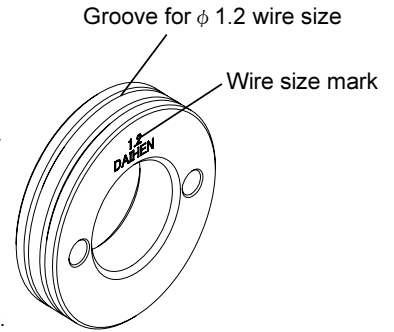
## 7. WELDING PREPERATION (continued)

### 7.2 Mounting of the Feed Roll

#### Confirming of the wire size marked on the feed roll

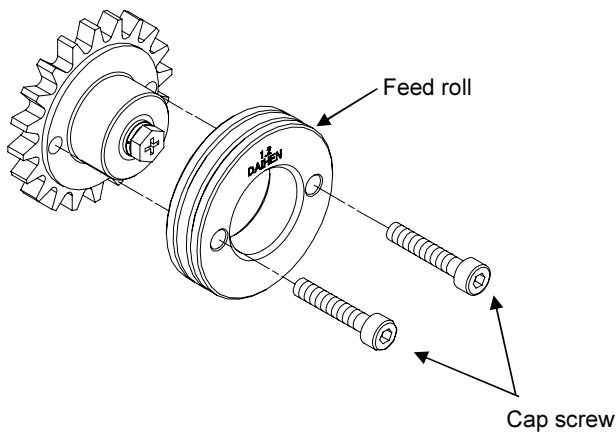
Use the proper feed roll for the wire size.

The feed roll of  $\phi$  1.2 wire size is mounted on the CMRE-741 wire feeder at shipment.



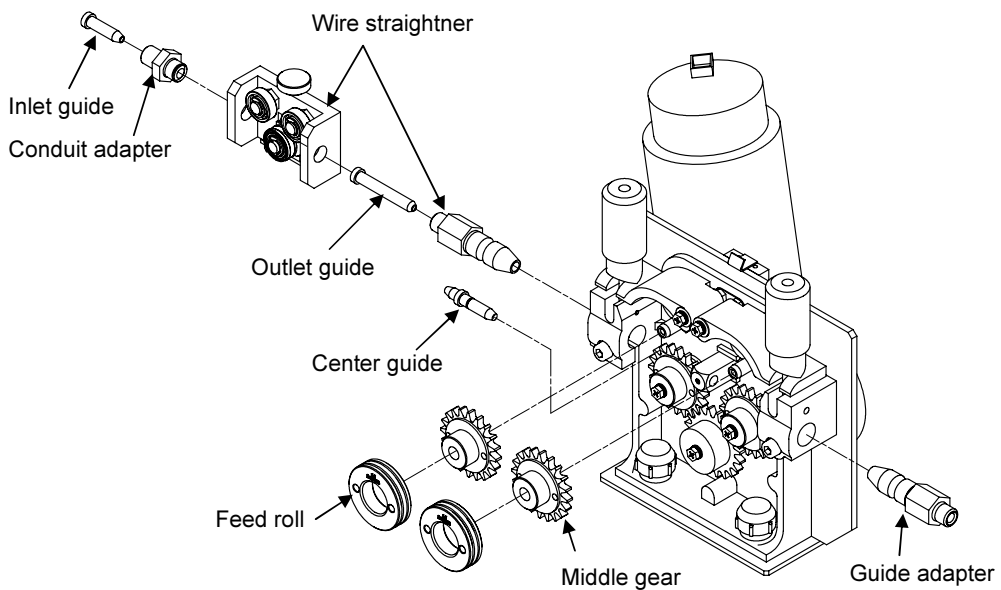
#### Replacing of the feed roll

1. Bring down the pressure handle, and then lift the pressure roll holder.
2. Remove the cap screws fixing the feed roll.
3. Pull the feed roll out from the wire feeder.
4. Mount the new feed roll, with the wire size marked on the wire feeder facing out.



#### ● For aluminum welding and brazing

- ① Remove the pressure roll.
- ② Change the center guide for aluminum.
- ③ Attach the middle gear and feed roll for aluminum.
- ④ Attach the wire straightner.



## 7. WELDING PREPERATION (continued)

### Adjusting of the wire pressure and straightened





- Set to the proper wire pressure for the wire type by turning the pressure handle.
- The numeral on the pressure scale set with the right pressure handle should be corresponding to the one set with the left pressure handle.

Recommended wire pressure adjustment			
	Wire dia. ( $\phi$ mm)	Pressure handle scale	Wire straightner scale
Hard aluminum (AL/MG (HARD))	2.4	2~3	1~2
	1.6	2~3	2~3
	1.2	1~2	3~4
	1.0	1~2	4~5
Soft aluminum (AL/PURE (SOFT))	2.4	2~3	2~3
	1.6	2~3	2~3
	1.2	1~2	4~5
Mild steel, stainless steel and brazing	1.6	3~4	2~3
	1.4	3~4	3~4
	1.2	2~3	3~4
	1.0	2~3	4~5
	0.9	2~3	4~5
	0.8	1~2	4~5
	0.6	1~2	4~5

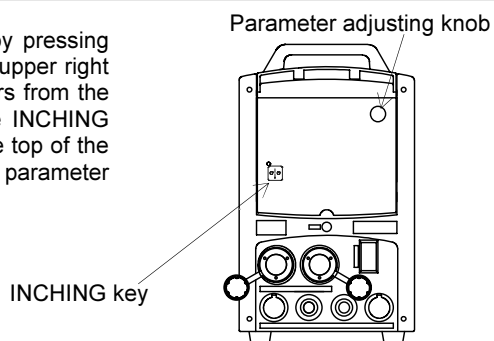
Applicable wire diameter for brazing are  $\phi$  0.8, 0.9, 1.0 and 1.2.

For aluminum welding and for brazing, exchange the feed roll and other parts referring to 7.2.

### 7.3 Feeding Wire by Inching Operation

 <b>WARNING</b>	
	● <b>Keep away your face, eyes and body from the top of torch while inching. Wire may come out and stick to your face, eyes and body and cause injured.</b>
 <b>CAUTION</b>	
	● <b>Keep away your hands, fingers, hair or clothes from the rotating parts of the feed roll, etc. to prevent you from being caught into the rotating parts while inching.</b>

After straightening the welding torch, feed the wire by pressing the INCHING key. (the INCHING lamp located at the upper right of the INCHING key lights up). When the wire appears from the top of the torch, press the INCHING key again (the INCHING lamp goes out). Cut the wire at about 10 mm from the top of the torch. Wire feed speed can be adjusted by turning the parameter adjusting knob.




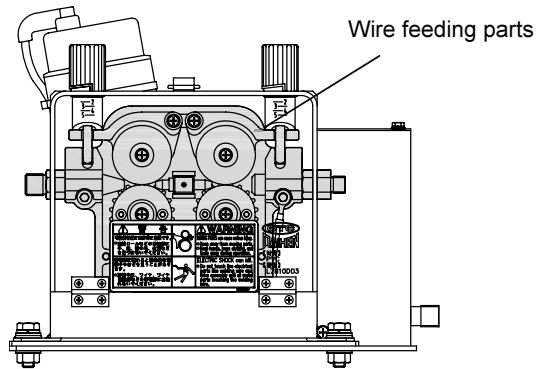
## 7. WELDING PREPERATION (continued)

### WARNING

Do not touch the charged sections; otherwise, you might receive serious electric shock or get burned.





- The parts indicated as  in the figure below are the charging parts during welding.





## 8. MAINTENANCE AND TROUBLESHOOTING

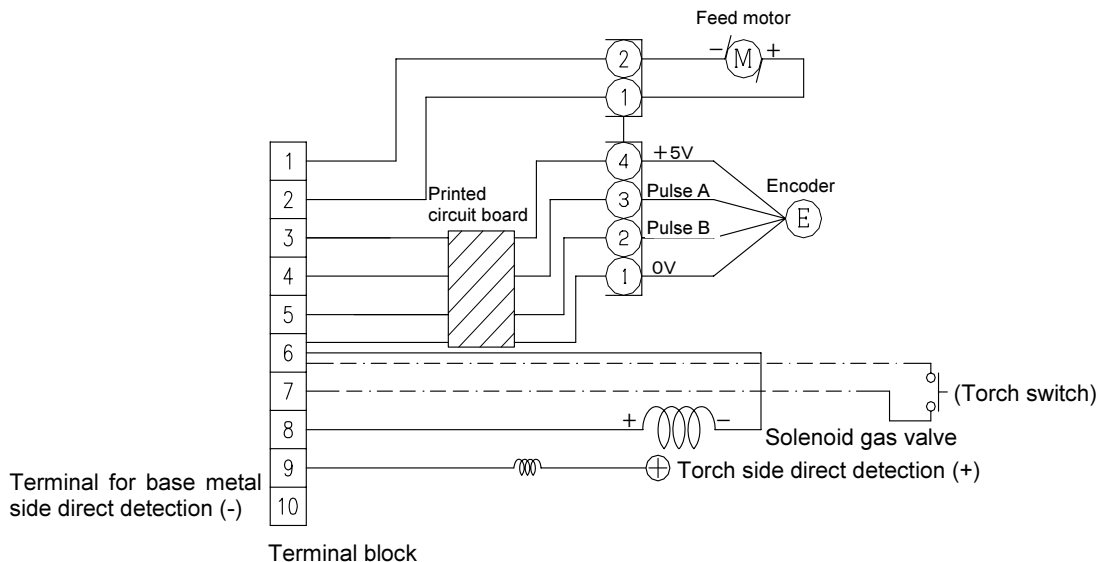
### 8.1 Maintenance

 <b>WARNING</b>	
	<ul style="list-style-type: none"> <li>● <b>Do not touch the charged sections; otherwise, you might receive serious electric shock or get burned.</b></li> <li>● <b>Turn off all of the line disconnect switches before touching the parts inside the welding machine.</b></li> </ul>

No.	Problem	Cause	Solution
1	Wire gets deformed.	Wire pressure is too strong.	Refer to "Recommended wire adjustment" in Section 7.2.
		Wire size of the feed roll is not proper.	Replace it with the proper feed roll.
		Feed roll and pressure roll are worn.	Replace the feed roll and the pressure roll with a new ones.
2	Wire is not fed.	Poor contact and breakdown in the control cable.	Check the socket. Check the cables and replace with new ones.
		Poor contact and breakdown in the encoder cable.	
		Poor contact and breakdown in the voltage detection cable.	
		Trouble with the motor.	Replace the motor with a new one.
		Wire pressure is too weak.	Refer to "Recommended wire pressure adjustment" in Section 7.2.
		Dust and chip are accumulated on the entrance of the outlet guide and on the feed roll.	Remove the dust and chip.
3	Pressure roll does not rotate smoothly.	Failure of the pressure roll holder.	Replace it with a new one.
4	Shield gas is not supplied when pressing the torch switch.	The discharge valve is closed the gas cylinder.	Open the valve.
		Lack of gas pressure in the gas cylinder.	Check gas pressure.
		Failure of gas solenoid valve.	After checking the gas solenoid valve, replace it with new one.
5	Shield gas does not stop flowing.	Failure of gas solenoid valve.	Check the socket and replace with new one.
6	Defective gas hoses.	Crack in the gas hose.	Replace them with new one.

## 8. MAINTENANCE AND TROUBLESHOOTING (continued)

< Schematic Diagram >



### 8.2 Replacement of the feed motor

#### **CAUTION**

- Never attempt to disassemble the feed motor. This may result in damage to the wire feeder.
- Never check the amount of brushing friction or replace the brush.

Service life of the brush varies depending on ambient temperature, etc., but normally the service life is about 4,000 hours. (If the machine is operated for six hours a day, the service life of the brush will be about two years). Periodical replacement of the feed motor is recommended.

## 9. PARTS LIST

- Please contact your local dealer to order parts. (See the back cover for telephone and fax numbers, and mailing addresses.)

### 9.1 Main body and Wiring (Fig.1)

Ref. No.	Part number	Description	Q'ty	Remarks
1	U5206B00	Wire feeding part	1	Assembly
2	U5206D00	Cover	1	Assembly
3	U5206E00	Control cable	1	Assembly (including plug socket)
3-1	4730-422	Plug socket	(1)	
4	U5206F00	Motor cable	1	Assembly
5	U5622X00	Encoder cable	1	Assembly
6	4739-492	Terminal block	1	
7	U5206H00	Common mode coil	1	Assembly
8	U1997C02	Hose clamp	1	
9	U1997C03	Hose cover	1	
10	U5206G00	Gas piping	1	Including solenoid valve, gas connecting fittings, flange, and gas hose
10-1	4813-001	Solenoid valve	(1)	
10-2	U1997D01	Gas connection fittings	(1)	
10-3	U1997D02	Flange	(1)	
11	U5315M01	Insulating board	1	
12	U1997C06	Insulation bush	2	
12-1	None	Hexagon head bolt	2	M8×25
12-2	None	Nut, washer	2	M8

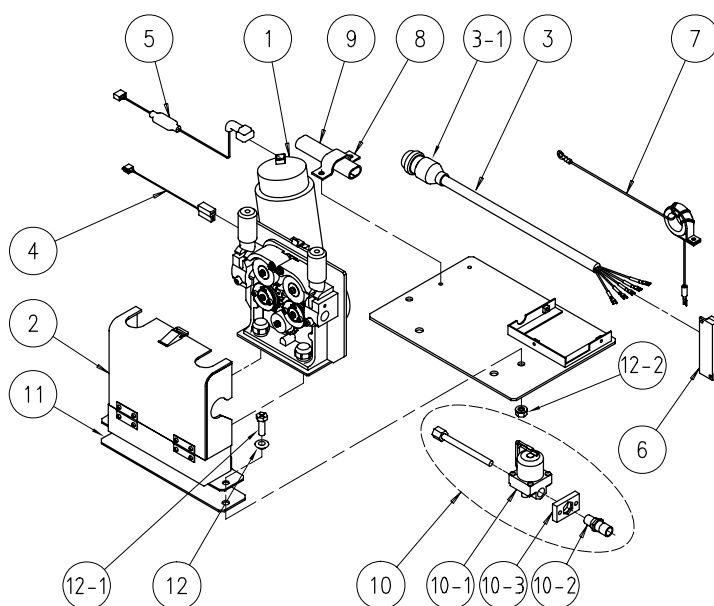


Fig.1 Main Body and Wiring Assembly

## 9. PARTS LIST (continued)

### 9.2 Wire feeding part (Fig.2)

Ref. No.	Part number	Description	Q'ty	Remarks
1	U5209B01	Bracket	1	
1-1	None	Cap screw	2	M6 x 30
2	U5185B08	Coil spring	1	
3	U5185B02	Pressure roll holder pin	2	
4	U5185S00	Pressure roll holder (R)	1	Assembly
5	U5185T00	Pressure roll holder (L)	1	Assembly
6	K5439C00	Pressure roll	2	Assembly
7	U5185B03	Driving roll shaft	2	
8	U5185P00	Middle gear	2	Assembly
9	K5439B12	Feed roll (0.9-1.0/1.2)	2	For steel
9-1	3361-880	Cap screw	4	M4 x 16
10	U5185B04	Guide block	1	
11	U5185B05	Center guide	1	
12	4802-206	Feed motor	1	
13	U5185B06	Insulating board	1	
14	L7810D01	Insulating board	1	
14-1	3361-895	P type flat head screw	3	M5 x 10
15	U3971B04	Insulation bush	3	
15-1	3361-896	P type flat head screw	3	M6 x 20
16	U5185Q00	Drive gear	1	
17	U5185B09	Pressure spring holder	2	
18	U5185B12	Compression spring	2	
19	U5185B10	Pressure handle	2	
20	U5185B11	Pressure bolt	2	
20-1	4739-043	Spring pin	2	2.5 x 14
21	U5206J01	Wire guide	1	For conduit
22	U5209J01	Guide adapter	1	For torch
23	U5185B14	Insulating board	1	

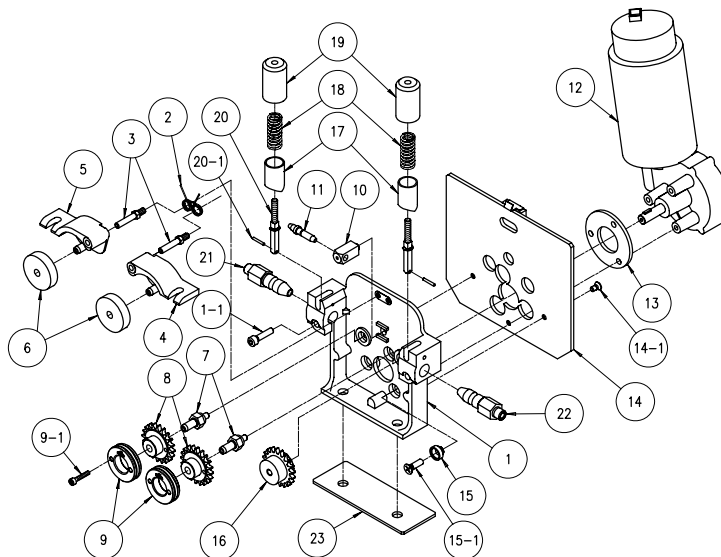


Fig.2 Wire Feeding Part Assembly

## 9. PARTS LIST (continued)

### 9.3 Feeding cover (Fig.3)

Ref. No.	Part number	Description	Q'ty	Remarks
1	U5315D01	Base plate	1	
2	L7810D03	Transparent cover	1	
3	4739-572	Snap lock	1	
3-1	None	P type flat head bolt, nut	4	M3×8
4	4739-540	Flat type hinge	2	
4-1	None	P type round screw, nut	8	M3×8
5	U5185B13	Insulation bush	2	
5-1	3361-887	Hexagon head bolt	2	M8×25
5-2	None	Thin nut, washer	2	M8
6	U5185B15	Insulating cover	2	

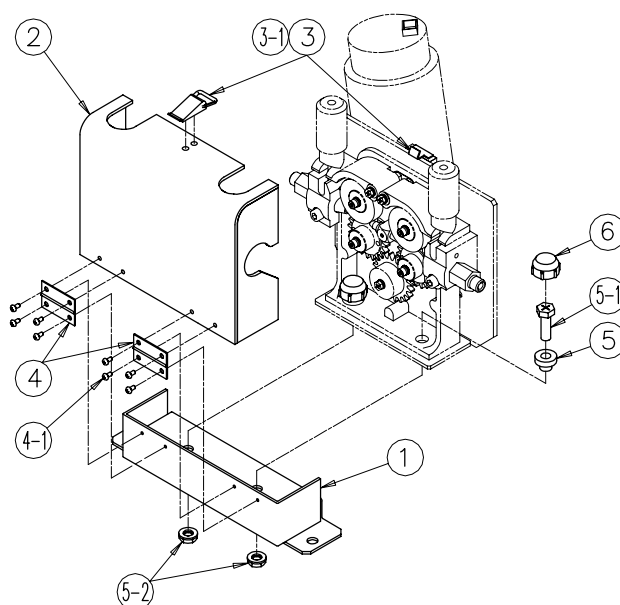


Fig.3 Feeding Cover Assembly

### 9.4 Optional parts

(1) Extension cable / hose

· Control cable (10P)

	Cable length			
	5m	10m	15m	20m
Model	BKCPJ-1005	BKCPJ-1010	BKCPJ-1015	BKCPJ-1020

Gas hose

	Hose length			
	5m	10m	15m	20m
Model	BKGG-0605	BKGG-0610	BKGG-0615	BKGG-0620

## 9. PARTS LIST (continued)

### (2) Conduit

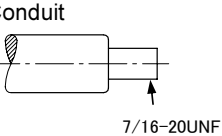


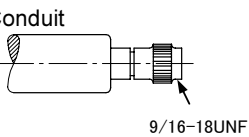


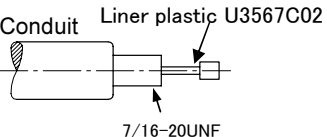


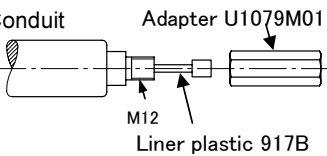


Type	Inside diameter	End shape		Connect type
		Pale pack wire side	Wire feeder side	
Z318B□□	φ 2.36	9/16-18 UNF (female screw)	7/16-20 UNF (female screw)	A
Z318D□□	φ 3.56	9/16-18 UNF (female screw)	7/16-20 UNF (female screw)	
Z318N□□	φ 2.36	Quick joint	7/16-20 UNF (female screw)	
Z318M□□	φ 3.56	Quick joint	7/16-20 UNF (female screw)	
Z318Q□□	φ 2.36	9/16-18 UNF (female screw)	9/16-18 UNF (female screw)	B
Z318P□□	φ 3.56	9/16-18 UNF (female screw)	9/16-18 UNF (female screw)	C
Z318F□□	φ 4.70	9/16-18 UNF (female screw)	7/16-20 UNF (female screw)	
Z318L□□	φ 4.70	Quick joint	7/16-20 UNF (female screw)	
Z318T□□	φ 6.00	9/16-18 UNF (female screw)	M12	D
Z318R□□	φ 6.00	Quick joint	M12	

□□ is changed by conduit length.

### Parts for Aluminum wire

Part number	Description	Q'ty	Remarks
U3567C02	Liner plastic	1	For Z318F,L Liner length : 3.4m
K917B□□	Liner plastic	1	For Z318T,R □□ is changed by wire diameter and liner length
U1079M01	Adapter	1	For Z318T,R For connect conduit and guide adapter

### Parts when connect conduit and wire feeder

Connect type	Wire	Conduit	Wire feeder side
A	Mild steel 0.6-1.6	 <p>Conduit</p> <p>7/16-20UNF</p>	Guide adapter(1) L7810D04  or Conduit adapter K970E63 
B	Mild steel 0.6-1.6	 <p>Conduit</p> <p>9/16-18UNF</p>	Wire guide U5206J01  or Conduit adapter K970E62 
C	Aluminum 1.0-1.2  Brazing 0.8-1.2	 <p>Conduit</p> <p>Liner plastic U3567C02</p> <p>7/16-20UNF</p>	Guide adapter(2) L7810D05  or Guide adapter(4) L7812B02 
D	Aluminum 1.0-1.6  Brazing 0.8-1.2	 <p>Conduit</p> <p>Adapter U1079M01</p> <p>M12</p> <p>Liner plastic 917B</p>	Guide adapter(2) L7810D05  or Guide adapter(4) L7812B02 

## 9. PARTS LIST (continued)

### (3) Feed roll and pressure roll (Fig.4)

Part number	Description	Q'ty	Remarks
K5439B01	Feed roll (1.4/1.6)	2	For steel
K5439B04	Feed roll (1.2/1.4)	2	For steel
K5439B05	Feed roll (1.2/1.2)	2	For steel
K5439B06	Feed roll (1.4/1.4)	2	For steel
K5439B07	Feed roll (1.6/1.6)	2	For steel
K5439B09	Feed roll (0.6/0.8)	2	For steel
K5439B11	Feed roll (1.2/1.6)	2	For steel
K5439B12	Feed roll (0.9-1.0/1.2)	2	For steel
K5439B13	Feed roll (0.8/0.9-1.0)	2	For steel
K5439C00	Pressure roll	2	For steel
K5463R02	Feed roll (1.0/1.2)	4	For aluminum(U type groove)
K5463R03	Feed roll (1.2/1.6)	4	For aluminum(U type groove)
K5463V02	Feed roll (1.0/1.2)	4	For aluminum(V type groove)
K5463V03	Feed roll (1.2/1.6)	4	For aluminum(V type groove)
K5463R06	Feed roll (0.8/0.9)	4	For brazing

### (4) Center guide (Fig.4)

Part number	Description	Q'ty	Remarks
U5185B05	Center guide (0.6-1.6)	1	For steel
U5204B02	Center guide (0.8-1.0)	1	For aluminum, white
U5204B03	Center guide (1.0-1.6)	1	For aluminum, black
U5204B04	Center guide (2.0-2.4)	1	For aluminum, white

### (5) Torch connection part (Fig.4)

Part number	Description	Q'ty	Remarks
U5206N01	Guide adapter	1	For steel (9/16-18UNF)
U5209J01	Guide adapter	1	For steel (7/16-20UNF)
U5204J01	Guide adapter	1	For aluminum (7/16-20UNF)

### (6) Conduit connection part (Fig.4)

Part number	Description	Q'ty	Remarks
U5206J01	Wire guide	1	For steel (9/16-18UNF)
L7810D04	Guide adapter (1)	1	For steel (7/16-20UNF)
L7810D05	Guide adapter (2)	1	For aluminum (7/16-20UNF)
U2586F02	Outlet guide	1	For aluminum (for L7810D05)

### Parts for wire straightner (Fig.4)

Part number	Description	Q'ty	Remarks
U5206P00	Wire straightner	1	For steel and aluminum
K970C21	Outlet guide	1	For steel
U2586F02	Outlet guide	1	For aluminum
K970E62	Conduit adapter	1	For steel, for conduit (9/16-18UNF)
K970E63	Conduit adapter	1	For steel, for conduit (7/16-20UNF)
L7812B02	Guide adapter (4)	1	For aluminum For conduit (7/16-20UNF)
L7812B03	Inlet guide	1	For aluminum (for L7812B02)

## 9. PARTS LIST (continued)

### (7) Aluminum kit (Fig.4)

Part number	Description	Q'ty	Remarks
K5603B00	Aluminum kit	1	
K5463R02	Feed roll (1.0/1.2)	(4)	U type groove
U5185P00	Middle gear	(2)	
3361-880	Cap screw	(4)	M4 x 16
U5204B03	Center guide (1.0-1.6)	(1)	black
U5204J01	Guide adapter	(1)	For torch (7/16-20UNF)
U5206P00	Wire straightner	(1)	For steel and aluminum
U2586F02	Outlet guide	(1)	For wire straightner
L7812B02	Guide adapter (4)	(1)	For conduit (7/16-20UNF)
L7812B03	Inlet guide	(1)	For conduit

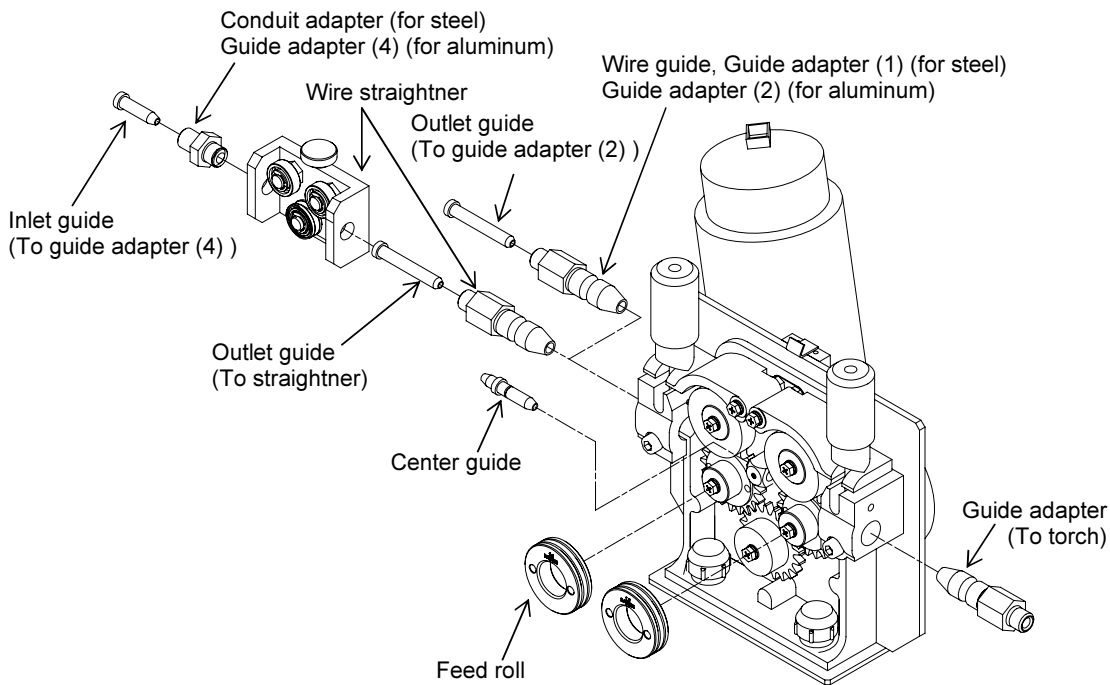


Fig.4 Optional Parts Assembly



## 10. SPECIFICATIONS

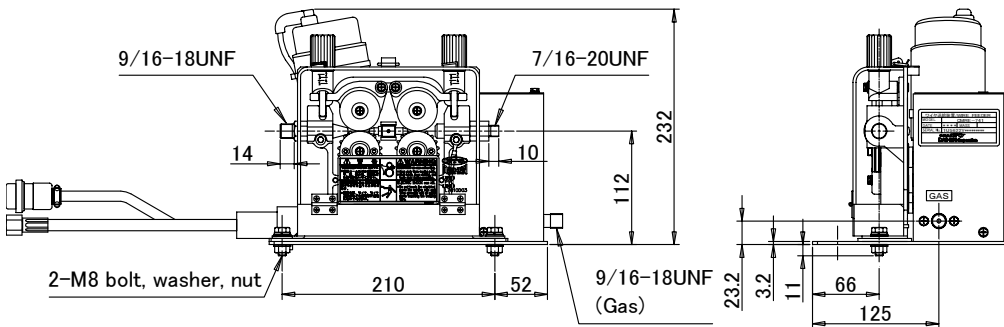
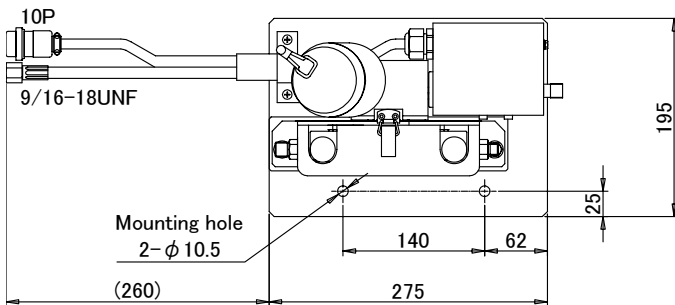
### 10.1 Specifications

Model	CMRE-741	
Applicable wire size	Mild steel	(0.6)*, (0.8), 0.9, 1.0, 1.2, (1.4), (1.6)
	Stainless steel	(0.8), 0.9, 1.0, 1.2, (1.4), (1.6)
	Hard aluminum (AL/MG (HARD))	(1.0), (1.2), (1.6)
	Soft aluminum (AL/PURE (SOFT))	(1.2), (1.6)
	Brazing*	(0.8), (0.9), (1.0), (1.2)
Wire feeding rate	Max. 22 m/min	
Mass	7 kg	

\*When using  $\phi$  0.6 wire or brazing wire, additional welding mode (optional) to the welding power source is necessary.

### 10.2 Available Welding Torch

CO <sub>2</sub> Welding torch	Cable length	
	1.1m	1.2m
K2331 type curved torch 350A, 70%	K5369	K5370
K2525 type straight torch 350A, 70%		



**CMRE-741 type wire feeder external view**



**DAIHEN Corporation**

4-1, Koyocho-nishi, Higashinada-ku,  
Kobe, Hyogo 658-0033

Phone: +81-78-275-2006, Fax: +81-78-845-8159

**DAIHEN, INC. DAYTON OFFICE**

1400 Blauser Drive

Tipp City, Ohio 45371, USA

Phone: +1-937-667-0800, Fax: +1-937-667-0885

**OTC DAIHEN EUROPE GmbH.**

Krefelder Strasse 675-677,

D-41066 Mönchengladbach, GERMANY

Phone: +49-2161-6949710, Fax: +49-2161-6949711

**OTC Industrial (Shanghai) Co.,Ltd.**

17F Majesty Building, 138 Pu Dong Da Dao Shanghai

The People's Republic of China

Post Code: 200120

Phone: +86-21-5882-8633, Fax: +86-21-5882-8846

**OTC (Taiwan) Co.,Ltd.**

2F No. 153, Huanbei Rd., Chung Li City,

Taoyuan Hsien, Taiwan R.O.C.

Phone: +886-3-461-3962, Fax: +886-3-434-2394

**OTC DAIHEN Asia Co.,Ltd.**

23/43, 16th Fl. Sorachai Building,

23 Soi 63 Sukhumvit Road,

Klongtonnua, Wattana, Bangkok 10110, Thailand

Phone: +66-2-714-3201, Fax: +66-2-714-3204

**OTC DAIHEN Korea Co.,Ltd**

11B/L Hyeongok Industrial Complex, 463-1 Hyeongok-ri,

Cheongbuk-myeon, Pyeongtaek, Gyeonggi-do, 451-831, Republic of Korea

Phone: +82-31-686-7459, Fax: +82-31-686-7465

**Upon contact, advise MODEL and MANUAL NO.**